

10/581761

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78063.txt

## SEQUENCE LISTING

<110> Hellström, Mats  
Wallgard, Elisabet  
Kalén, Mattias

<120> ANGIOGENESIS-AFFECTING POLYPEPTIDES, PROTEINS, AND COMPOSITIONS,  
AND METHODS OF USE THEREOF

<130> 78063

<160> 52

<170> PatentIn version 3.2

<210> 1

<211> 736

<212> DNA

<213> Murinae gen. sp.

<400> 1

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tccgctcggg ccagacttgc taccatcca ttcgcgggga ccagctggct ctgctggggc      180
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<211> 1380

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cggtgcagca gctgcccctg gtgctgctga tgttgctgtt ggcgagtgcg gcacggggcca      180
gactctactt ccgctcgggc cagacttgct accatcccat tcgcgggggac cagctggctc      240
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gaatcaacat caagaggaaa ggtgcatggc cctccatcct gctgtccgta cagaatgtca 480
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 <213> Murinae gen. sp.

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 20 25 30

Gln Thr Cys Tyr His Pro Ile Arg Gly Asp Gln Leu Ala Leu Leu Gly  
 35 40 45

Arg Arg Thr Tyr Pro Arg Pro His Glu Tyr Leu Ser Pro Ala Asp Leu  
 50 55 60

Pro Lys Asn Trp Asp Trp Arg Asn Val Asn Gly Val Asn Tyr Ala Ser  
 65 70 75 80

Val Thr Arg Asn Gln His Ile Pro Gln Tyr Cys Gly Ser Cys Trp Ala  
 85 90 95  
 His Gly Ser Thr Ser Ala Met Ala Asp Arg Ile Asn Ile Lys Arg Lys  
 100 105 110  
 Gly Ala Trp Pro Ser Ile Leu Leu Ser Val Gln Asn Val Ile Asp Cys  
 115 120 125  
 Gly Asn Ala Gly Ser Cys Glu Gly Gly Asn Asp Leu Pro Val Trp Glu  
 130 135 140  
 Tyr Ala His Lys His Gly Ile Pro Asp Glu Thr Cys Asn Asn Tyr Gln  
 145 150 155 160  
 Ala Lys Asp Gln Asp Cys Asp Lys Phe Asn Gln Cys Gly Thr Cys Thr  
 165 170 175  
 Glu Phe Lys Glu Cys His Thr Ile Gln Asn Tyr Thr Leu Trp Arg Val  
 180 185 190  
 Gly Asp Tyr Gly Ser Leu Ser Gly Arg Glu Lys Met Met Ala Glu Ile  
 195 200 205  
 Tyr Ala Asn Gly Pro Ile Ser Cys Gly Ile Met Ala Thr Glu Met Met  
 210 215 220  
 Ser Asn Tyr Thr Gly Gly Ile Tyr Ala Glu His Gln Asp Gln Ala Val  
 225 230 235 240  
 Ile Asn His Ile Ile Ser Val Ala Gly Trp Gly Val Ser Asn Asp Gly  
 245 250 255  
 Ile Glu Tyr Trp Ile Val Arg Asn Ser Trp Gly Glu Pro Trp Gly Glu  
 260 265 270  
 Lys Gly Trp Met Arg Ile Val Thr Ser Thr Tyr Lys Gly Gly Thr Gly  
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 290 295 300  
 Ile Val  
 305

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 <212> DNA  
 <213> Homo sapiens

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 caggggtggcg gccgcttctg ctgctcgtgc tgctggcggg cgcggcgcag ggcggcctct 180  
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 ggcgcagcac ataccccccg cctcatgagt acctgtcccc agcggatctg cccaagagct 300  
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 cccaatactg cggtcctgctc tgggcccacg ccagcaccag cgctatggcg gatcggatca 420  
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 agcacggcat ccctgacgag acctgcaaca actaccaggc caaggaccag gagtgtgaca 600  
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 ccctctggag ggtgggagac tacggctccc tctctgggag ggagaagatg atggcagaaa 720  
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 ccggaggcat ctatgccgaa taccaggaca ccacatatat aaaccatgtc gtttctgtgg 840  
 ctgggtgggg catcagtgat gggactgagt actggattgt ccggaattca tggggtgaac 900  
 catggggcga gagaggctgg ctgaggatcg tgaccagcac ctataaggat gggaagggcg 960  
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 ttggcaactg tgggcaataa tatggcattt aagaggtgaa agagttcaga cttatcacca 1380  
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<210> 5  
 <211> 303  
 <212> PRT  
 <213> Homo sapiens

<400> 5

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 35 40 45  
 Thr Tyr Pro Arg Pro His Glu Tyr Leu Ser Pro Ala Asp Leu Pro Lys  
 50 55 60  
 Ser Trp Asp Trp Arg Asn Val Asp Gly Val Asn Tyr Ala Ser Ile Thr  
 65 70 75 80  
 Arg Asn Gln His Ile Pro Gln Tyr Cys Gly Ser Cys Trp Ala His Ala  
 85 90 95  
 Ser Thr Ser Ala Met Ala Asp Arg Ile Asn Ile Lys Arg Lys Gly Ala  
 100 105 110  
 Trp Pro Ser Thr Leu Leu Ser Val Gln Asn Val Ile Asp Cys Gly Asn  
 115 120 125  
 Ala Gly Ser Cys Glu Gly Gly Asn Asp Leu Ser Val Trp Asp Tyr Ala  
 130 135 140  
 His Gln His Gly Ile Pro Asp Glu Thr Cys Asn Asn Tyr Gln Ala Lys  
 145 150 155 160  
 Asp Gln Glu Cys Asp Lys Phe Asn Gln Cys Gly Thr Cys Asn Glu Phe  
 165 170 175  
 Lys Glu Cys His Ala Ile Arg Asn Tyr Thr Leu Trp Arg Val Gly Asp  
 180 185 190  
 Tyr Gly Ser Leu Ser Gly Arg Glu Lys Met Met Ala Glu Ile Tyr Ala  
 195 200 205  
 Asn Gly Pro Ile Ser Cys Gly Ile Met Ala Thr Glu Arg Leu Ala Asn  
 210 215 220  
 Tyr Thr Gly Gly Ile Tyr Ala Glu Tyr Gln Asp Thr Thr Tyr Ile Asn  
 225 230 235 240  
 His Val Val Ser Val Ala Gly Trp Gly Ile Ser Asp Gly Thr Glu Tyr  
 245 250 255

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Trp Ile Val Arg Asn Ser Trp Gly Glu Pro Trp Gly Glu Arg Gly Trp  
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Leu Arg Ile Val Thr Ser Thr Tyr Lys Asp Gly Lys Gly Ala Arg Tyr  
 275 280 285

Asn Leu Ala Ile Glu Glu His Cys Thr Phe Gly Asp Pro Ile Val  
 290 295 300

<210> 6  
 <211> 646  
 <212> DNA  
 <213> Murinae gen. sp.

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 ttaccaaga ctctttcggg actttcacca tcaatgaatc cagtatagct gattctccaa 180  
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 ttttaaaaac tctggatgcc atggctttta ataagtttaa tggtcttcac tggcacatag 300  
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 ttgggcctgt agacccaact gtaaacacaa cgtatgcatt ctttaacaca tttttcaaag 600  
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<210> 7  
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 atttcgagct gagccacagt tgcagaagct cctggctctcc attaccctcg agtcagagtg 420  
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tccaagattc cctcatagag gaattttaat tgatacatct agacacttcc tgcctgtgaa 660
gacaatttta aaaactctgg atgccatggc ttttaataag tttaatgttc ttcactggca 720
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caaagaaatc agcagtgtgt ttccagatca gttcatccac ttgggaggag atgaagtaga 1080
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cttaaagaag aactccattg tttggcaaga agtttttgat gataagggtg agcttcagcc 1260
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aggctctggc ttccctgcca tcctttctgc tccttggtac ttagacctga tcagctatgg 1380
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gaaacaactt gttattggtg gagaagcttg cctgtgggga gaatttggtg atgcaactaa 1500
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<210> 8
<211> 536
<212> PRT
<213> Murinae gen. sp.

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<400> 8
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20           25           30

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Pro Ala Leu Trp Pro Phe Pro Arg Ser Val Gln Met Phe Pro Arg Leu  
 35 40 45  
 Leu Tyr Ile Ser Ala Glu Asp Phe Ser Ile Asp His Ser Pro Asn Ser  
 50 55 60  
 Thr Ala Gly Pro Ser Cys Ser Leu Leu Gln Glu Ala Phe Arg Arg Tyr  
 65 70 75 80  
 Tyr Asn Tyr Val Phe Gly Phe Tyr Lys Arg His His Gly Pro Ala Arg  
 85 90 95  
 Phe Arg Ala Glu Pro Gln Leu Gln Lys Leu Leu Val Ser Ile Thr Leu  
 100 105 110  
 Glu Ser Glu Cys Glu Ser Phe Pro Ser Leu Ser Ser Asp Glu Thr Tyr  
 115 120 125  
 Ser Leu Leu Val Gln Glu Pro Val Ala Val Leu Lys Ala Asn Ser Val  
 130 135 140  
 Trp Gly Ala Leu Arg Gly Leu Glu Thr Phe Ser Gln Leu Val Tyr Gln  
 145 150 155 160  
 Asp Ser Phe Gly Thr Phe Thr Ile Asn Glu Ser Ser Ile Ala Asp Ser  
 165 170 175  
 Pro Arg Phe Pro His Arg Gly Ile Leu Ile Asp Thr Ser Arg His Phe  
 180 185 190  
 Leu Pro Val Lys Thr Ile Leu Lys Thr Leu Asp Ala Met Ala Phe Asn  
 195 200 205  
 Lys Phe Asn Val Leu His Trp His Ile Val Asp Asp Gln Ser Phe Pro  
 210 215 220  
 Tyr Gln Ser Thr Thr Phe Pro Glu Leu Ser Asn Lys Gly Ser Tyr Ser  
 225 230 235 240  
 Leu Ser His Val Tyr Thr Pro Asn Asp Val Arg Met Val Leu Glu Tyr  
 245 250 255  
 Ala Arg Leu Arg Gly Ile Arg Val Ile Pro Glu Phe Asp Thr Pro Gly  
 260 265 270  
 His Thr Gln Ser Trp Gly Lys Gly Gln Lys Asn Leu Leu Thr Pro Cys  
 275 280 285



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Tyr Asn Gln Lys Thr Lys Thr Gln Val Phe Gly Pro Val Asp Pro Thr  
 290 295 300  
 Val Asn Thr Thr Tyr Ala Phe Phe Asn Thr Phe Phe Lys Glu Ile Ser  
 305 310 315 320  
 Ser Val Phe Pro Asp Gln Phe Ile His Leu Gly Gly Asp Glu Val Glu  
 325 330 335  
 Phe Gln Cys Trp Ala Ser Asn Pro Asn Ile Gln Gly Phe Met Lys Arg  
 340 345 350  
 Lys Gly Phe Gly Ser Asp Phe Arg Arg Leu Glu Ser Phe Tyr Ile Lys  
 355 360 365  
 Lys Ile Leu Glu Ile Ile Ser Ser Leu Lys Lys Asn Ser Ile Val Trp  
 370 375 380  
 Gln Glu Val Phe Asp Asp Lys Val Glu Leu Gln Pro Gly Thr Val Val  
 385 390 395 400  
 Glu Val Trp Lys Ser Glu His Tyr Ser Tyr Glu Leu Lys Gln Val Thr  
 405 410 415  
 Gly Ser Gly Phe Pro Ala Ile Leu Ser Ala Pro Trp Tyr Leu Asp Leu  
 420 425 430  
 Ile Ser Tyr Gly Gln Asp Trp Lys Asn Tyr Tyr Lys Val Glu Pro Leu  
 435 440 445  
 Asn Phe Glu Gly Ser Glu Lys Gln Lys Gln Leu Val Ile Gly Gly Glu  
 450 455 460  
 Ala Cys Leu Trp Gly Glu Phe Val Asp Ala Thr Asn Leu Thr Pro Arg  
 465 470 475 480  
 Leu Trp Pro Arg Ala Ser Ala Val Gly Glu Arg Leu Trp Ser Pro Lys  
 485 490 495  
 Thr Val Thr Asp Leu Glu Asn Ala Tyr Lys Arg Leu Ala Val His Arg  
 500 505 510  
 Cys Arg Met Val Ser Arg Gly Ile Ala Ala Gln Pro Leu Tyr Thr Gly  
 515 520 525  
 Tyr Cys Asn Tyr Glu Asn Lys Ile  
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<210> 9  
 <211> 1746  
 <212> DNA  
 <213> Homo sapiens

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 aataaaggaa gctattcttt gtctcatgtt tatacaccaa atgatgtccg tatggtgatt 900  
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 ctatcttggg gaaaaggta gaaagacctc ctgactccat gttacagtag aaaaaacaag 1020  
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<210> 10  
<211> 556  
<212> PRT  
<213> Homo sapiens

<400> 10

Met Glu Leu Cys Gly Leu Gly Leu Pro Arg Pro Pro Met Leu Leu Ala  
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Leu Leu Leu Ala Thr Leu Leu Ala Ala Met Leu Ala Leu Leu Thr Gln  
20 25 30

Val Ala Leu Val Val Gln Val Ala Glu Ala Ala Arg Ala Pro Ser Val  
35 40 45

Ser Ala Lys Pro Gly Pro Ala Leu Trp Pro Leu Pro Leu Leu Val Lys  
50 55 60

Met Thr Pro Asn Leu Leu His Leu Ala Pro Glu Asn Phe Tyr Ile Ser  
65 70 75 80

His Ser Pro Asn Ser Thr Ala Gly Pro Ser Cys Thr Leu Leu Glu Glu  
85 90 95

Ala Phe Arg Arg Tyr His Gly Tyr Ile Phe Gly Phe Tyr Lys Trp His  
100 105 110

His Glu Pro Ala Glu Phe Gln Ala Lys Thr Gln Val Gln Gln Leu Leu  
115 120 125

Val Ser Ile Thr Leu Gln Ser Glu Cys Asp Ala Phe Pro Asn Ile Ser  
130 135 140

Ser Asp Glu Ser Tyr Thr Leu Leu Val Lys Glu Pro Val Ala Val Leu  
145 150 155 160

Lys Ala Asn Arg Val Trp Gly Ala Leu Arg Gly Leu Glu Thr Phe Ser  
165 170 175

Gln Leu Val Tyr Gln Asp Ser Tyr Gly Thr Phe Thr Ile Asn Glu Ser  
180 185 190

Thr Ile Ile Asp Ser Pro Arg Phe Ser His Arg Gly Ile Leu Ile Asp  
195 200 205

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Thr Ser Arg His Tyr Leu Pro Val Lys Ile Ile Leu Lys Thr Leu Asp  
210 215 220

Ala Met Ala Phe Asn Lys Phe Asn Val Leu His Trp His Ile Val Asp  
225 230 235 240

Asp Gln Ser Phe Pro Tyr Gln Ser Ile Thr Phe Pro Glu Leu Ser Asn  
245 250 255

Lys Gly Ser Tyr Ser Leu Ser His Val Tyr Thr Pro Asn Asp Val Arg  
260 265 270

Met Val Ile Glu Tyr Ala Arg Leu Arg Gly Ile Arg Val Leu Pro Glu  
275 280 285

Phe Asp Thr Pro Gly His Thr Leu Ser Trp Gly Lys Gly Gln Lys Asp  
290 295 300

Leu Leu Thr Pro Cys Tyr Ser Arg Gln Asn Lys Leu Asp Ser Phe Gly  
305 310 315 320

Pro Ile Asn Pro Thr Leu Asn Thr Thr Tyr Ser Phe Leu Thr Thr Phe  
325 330 335

Phe Lys Glu Ile Ser Glu Val Phe Pro Asp Gln Phe Ile His Leu Gly  
340 345 350

Gly Asp Glu Val Glu Phe Lys Cys Trp Glu Ser Asn Pro Lys Ile Gln  
355 360 365

Asp Phe Met Arg Gln Lys Gly Phe Gly Thr Asp Phe Lys Lys Leu Glu  
370 375 380

Ser Phe Tyr Ile Gln Lys Val Leu Asp Ile Ile Ala Thr Ile Asn Lys  
385 390 395 400

Gly Ser Ile Val Trp Gln Glu Val Phe Asp Asp Lys Ala Lys Leu Ala  
405 410 415

Pro Gly Thr Ile Val Glu Val Trp Lys Asp Ser Ala Tyr Pro Glu Glu  
420 425 430

Leu Ser Arg Val Thr Ala Ser Gly Phe Pro Val Ile Leu Ser Ala Pro  
435 440 445

Trp Tyr Leu Asp Leu Ile Ser Tyr Gly Gln Asp Trp Arg Lys Tyr Tyr  
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Lys Val Glu Pro Leu Asp Phe Gly Gly Thr Gln Lys Gln Lys Gln Leu  
465 470 475 480

Phe Ile Gly Gly Glu Ala Cys Leu Trp Gly Glu Tyr Val Asp Ala Thr  
485 490 495

Asn Leu Thr Pro Arg Leu Trp Pro Arg Ala Ser Ala Val Gly Glu Arg  
500 505 510

Leu Trp Ser Ser Lys Asp Val Arg Asp Met Asp Asp Ala Tyr Asp Arg  
515 520 525

Leu Thr Arg His Arg Cys Arg Met Val Glu Arg Gly Ile Ala Ala Gln  
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Pro Leu Tyr Ala Gly Tyr Cys Asn His Glu Asn Met  
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<213> Murinae gen. sp.

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caaccgcatt tatggcttct atgatgaatg caagagaaga tacaacatca aactgtggaa 480  
gacgttcact gactgcttca actgcctgcc cattgcagcc attgtggatg agaagatctt 540  
ctgctgccac gggggcctgt ctccagactt gcaatccatg gagcagatta ggcgtattat 600  
gcgngccaca gacgtgcctg accagggcct actgtgtgat ctctgtggt ctgaccctga 660  
caagaaatag cctcca 676

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 <211> 1369  
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 <213> Murinae gen. sp.

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 tgggaagaac gtgcagctga cagagaacga gatccgtggt ctgtgcctca aatcccggga 180  
 gattttcctg agccagccca ttcttctgga gcttgaggcg cccctcaaga tctgtggtga 240  
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 gagcaactac ctcttcttgg gggattatgt agatcggggc aagcagtctt tggagaccat 360  
 ctgcctgttg ctggcctata agatcagata cccggagaat ttctttctac ttcgtgggaa 420  
 ccatgagtgt gccagcatca accgcattta tggcttctat gatgaatgca agagaagata 480  
 caacatcaaa ctgtggaaga cgttcactga ctgcttcaac tgcctgcca ttgcagccat 540  
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 ctgagggcaa tggcagacca gattgtgggt ctccagcctt gcatggctgg cagccagatc 1320  
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<210> 13  
 <211> 330  
 <212> PRT  
 <213> Murinae gen. sp.

<400> 13

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Leu Glu Val Gln Gly Ser Arg Pro Gly Lys Asn Val Gln Leu Thr Glu  
 20 25 30  
 Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser  
 35 40 45  
 Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp  
 50 55 60  
 Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly  
 65 70 75 80  
 Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg  
 85 90 95  
 Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile  
 100 105 110  
 Arg Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala  
 115 120 125  
 Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr  
 130 135 140  
 Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro  
 145 150 155 160  
 Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu  
 165 170 175  
 Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro  
 180 185 190  
 Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp  
 195 200 205  
 Pro Asp Lys Asp Val Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser  
 210 215 220  
 Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp  
 225 230 235 240  
 Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu  
 245 250 255  
 Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr  
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270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr  
 275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Asp Lys Asn Lys Gly  
 290 295 300

Lys Tyr Gly Gln Phe Ser Gly Leu Asn Pro Gly Gly Arg Pro Ile Thr  
 305 310 315 320

Pro Pro Arg Asn Ser Ala Lys Ala Lys Lys  
 325 330

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 <213> Homo sapiens

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 aaatcccggg agatttttct gagccagccc attcttcttg agctggaggc acccctcaag 180  
 atctgcggtg acatacacgg ccagtactac gaccttctgc gactatttga gtatggcggt 240  
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 aagagacgct acaacatcaa actgtggaaa accttactg actgcttcaa ctgcctgccc 480  
 atcgcggcca tagtggacga aaagatcttc tgctgccacg gaggcctgtc cccggacctg 540  
 cagtctatgg agcagattcg gcggatcatg cggcccacag atgtgcctga ccagggcctg 600  
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<210> 15  
 <211> 330  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 15

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 1 5 10 15

Leu Glu Val Gln Gly Ser Arg Pro Gly Lys Asn Val Gln Leu Thr Glu  
 20 25 30

Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser  
 35 40 45

Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp  
 50 55 60

Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly  
 65 70 75 80

Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg  
 85 90 95

Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile  
 100 105 110

Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala  
 115 120 125

Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr  
 130 135 140

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro  
 145 150 155 160

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu  
 165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro  
 180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp  
 195 200 205

Pro Asp Lys Asp Val Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser  
 210 215 220

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp  
 225 230 235 240

## 78063.txt

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu  
 245 250 255

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr  
 260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr  
 275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Asp Lys Asn Lys Gly  
 290 295 300

Lys Tyr Gly Gln Phe Ser Gly Leu Asn Pro Gly Gly Arg Pro Ile Thr  
 305 310 315 320

Pro Pro Arg Asn Ser Ala Lys Ala Lys Lys  
 325 330

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 <211> 702  
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 <213> Murinae gen. sp.

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 caaggagggc aggttgctctt tctactcggg acactcttca ttctctatgt actgcatgct 660  
 gtttgctgca ctttatcttc aagccaggat gaaggagac tg 702

<210> 17  
 <211> 1432  
 <212> DNA  
 <213> Murinae gen. sp.

<400> 17  
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## 78063.txt

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<210> 18  
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 <212> PRT  
 <213> Murinae gen. sp.

<400> 18

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 20 25 30

Leu Ala Val Ala Trp Gly Gly Arg His Pro Glu Gly Gly Ala Leu Gly  
 35 40 45  
 Ile Gly Tyr Leu Asp Arg Arg Gly Leu Phe Leu Pro Pro Leu Ala Pro  
 50 55 60  
 Gly Gly Asp Thr Ile Gln Pro Val Thr Met Phe Asp Lys Thr Arg Leu  
 65 70 75 80  
 Pro Tyr Val Ala Leu Asp Val Ile Cys Val Leu Leu Ala Gly Leu Pro  
 85 90 95  
 Phe Ala Ile Leu Thr Ser Arg His Thr Pro Phe Gln Arg Gly Ile Phe  
 100 105 110  
 Cys Asn Asp Asp Ser Ile Lys Tyr Pro Tyr Lys Glu Asp Thr Ile Pro  
 115 120 125  
 Tyr Ala Leu Leu Gly Gly Ile Val Ile Pro Phe Cys Ile Ile Val Met  
 130 135 140  
 Ser Ile Gly Glu Ser Leu Ser Val Tyr Phe Asn Val Leu His Ser Asn  
 145 150 155 160  
 Ser Phe Val Gly Asn Pro Tyr Ile Ala Thr Ile Tyr Lys Ala Val Gly  
 165 170 175  
 Ala Phe Leu Phe Gly Val Ser Ala Ser Gln Ser Leu Thr Asp Ile Ala  
 180 185 190  
 Lys Tyr Thr Ile Gly Ser Leu Arg Pro His Phe Leu Ala Ile Cys Asn  
 195 200 205  
 Pro Asp Trp Ser Lys Ile Asn Cys Ser Asp Gly Tyr Ile Glu Asp Tyr  
 210 215 220  
 Ile Cys Gln Gly Asn Glu Glu Lys Val Lys Glu Gly Arg Leu Ser Phe  
 225 230 235 240  
 Tyr Ser Gly His Ser Ser Phe Ser Met Tyr Cys Met Leu Phe Val Ala  
 245 250 255  
 Leu Tyr Leu Gln Ala Arg Met Lys Gly Asp Trp Ala Arg Leu Leu Arg  
 260 265 270  
 Pro Met Leu Gln Phe Gly Leu Ile Ala Phe Ser Ile Tyr Val Gly Leu  
 275 280 285

## 78063.txt

Ser Arg Val Ser Asp Tyr Lys His His Trp Ser Asp Val Thr Val Gly  
 290 295 300

Leu Ile Gln Gly Ala Ala Met Ala Ile Leu Val Ala Leu Tyr Val Ser  
 305 310 315 320

Asp Phe Phe Lys Asp Thr His Ser Tyr Lys Glu Arg Lys Glu Glu Asp  
 325 330 335

Pro His Thr Thr Leu His Glu Thr Ala Ser Ser Arg Asn Tyr Trp Ala  
 340 345 350

Leu Ala Arg Phe Lys Gly Asn Ser Trp Arg Leu Lys Ala Gly Gly Cys  
 355 360 365

Val Leu Leu Pro Ala Val Gln Thr Ile Leu  
 370 375

<210> 19  
 <211> 1626  
 <212> DNA  
 <213> Homo sapiens

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## 78063.txt

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accaaa 1626

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<210> 20
<211> 378
<212> PRT
<213> Homo sapiens
<400> 20

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```

```

Gly Thr Asn Arg Val Phe Ala Gly Ala Val Arg Gly Gly Pro Arg Ala
20      25      30

```

```

Pro Leu Leu Ala Val Gly Ala Pro Pro Gly Leu Ser Pro Pro Ser Ala
35      40      45

```

```

Ala Leu Leu Leu Arg Leu Gly Gly Ala Val Ala Arg Gly Arg Arg Gln
50      55      60

```

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Pro Arg Pro Gly Leu Glu Asn Gln Gly Pro Arg Pro Pro Ser Arg Ser
65      70      75      80

```

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Ser Val His Arg Pro Cys Arg Ala Ala Arg Ala Glu Thr Met Phe Asp
85      90      95

```

```

Lys Thr Arg Leu Pro Tyr Val Ala Leu Asp Val Leu Cys Val Leu Leu
100     105     110

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Ala Ser Met Pro Met Ala Val Leu Lys Leu Gly Gln Ile Tyr Pro Phe
115     120     125

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## 78063.txt

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 145 150 155 160  
 Pro Ile Ser Ser Ile Ile Leu Gly Glu Thr Leu Ser Val Tyr Cys Asn  
 165 170 175  
 Leu Leu His Ser Asn Ser Phe Ile Arg Asn Asn Tyr Ile Ala Thr Ile  
 180 185 190  
 Tyr Lys Ala Ile Gly Thr Phe Leu Phe Gly Ala Ala Ala Ser Gln Ser  
 195 200 205  
 Leu Thr Asp Ile Ala Lys Tyr Ser Ile Gly Arg Leu Arg Pro His Phe  
 210 215 220  
 Leu Asp Val Cys Asp Pro Asp Trp Ser Lys Ile Asn Cys Ser Asp Gly  
 225 230 235 240  
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 245 250 255  
 Gly Arg Leu Ser Phe Tyr Ser Gly His Ser Ser Phe Ser Met Tyr Cys  
 260 265 270  
 Met Leu Phe Val Ala Leu Tyr Leu Gln Ala Arg Met Lys Gly Asp Trp  
 275 280 285  
 Ala Arg Leu Leu Arg Pro Thr Leu Gln Phe Gly Leu Val Ala Val Ser  
 290 295 300  
 Ile Tyr Val Gly Leu Ser Arg Val Ser Asp Tyr Lys His His Trp Ser  
 305 310 315 320  
 Asp Val Leu Thr Gly Leu Ile Gln Gly Ala Leu Val Ala Ile Leu Val  
 325 330 335  
 Ala Val Tyr Val Ser Asp Phe Phe Lys Glu Arg Thr Ser Phe Lys Glu  
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 Arg Lys Glu Glu Asp Ser His Thr Thr Leu His Glu Thr Pro Thr Thr  
 355 360 365  
 Gly Asn His Tyr Pro Ser Asn His Gln Pro  
 370 375

<210> 21  
 <211> 816  
 <212> DNA  
 <213> Homo sapiens

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 tgtgatccag attggtcaaa aatcaactgc agcgatgggt acattgaata ctacatatgt 420  
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 actgggaatc actatccgag caatcaccag ccttga 816

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 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 Lys Tyr Pro Tyr Lys Glu Asp Thr Ile Pro Tyr Ala Leu Leu Gly Gly  
 35 40 45  
 Ile Ile Ile Pro Phe Ser Ile Ile Val Ile Ile Leu Gly Glu Thr Leu  
 50 55 60  
 Ser Val Tyr Cys Asn Leu Leu His Ser Asn Ser Phe Ile Arg Asn Asn  
 65 70 75 80



## 78063.txt

Tyr Ile Ala Thr Ile Tyr Lys Ala Ile Gly Thr Phe Leu Phe Gly Ala  
85 90 95

Ala Ala Ser Gln Ser Leu Thr Asp Ile Ala Lys Tyr Ser Ile Gly Arg  
100 105 110

Leu Arg Pro His Phe Leu Asp Val Cys Asp Pro Asp Trp Ser Lys Ile  
115 120 125

Asn Cys Ser Asp Gly Tyr Ile Glu Tyr Tyr Ile Cys Arg Gly Asn Ala  
130 135 140

Glu Arg Val Lys Glu Gly Arg Leu Ser Phe Tyr Ser Gly His Ser Ser  
145 150 155 160

Phe Ser Met Tyr Cys Met Leu Phe Val Ala Leu Tyr Leu Gln Ala Arg  
165 170 175

Met Lys Gly Asp Trp Ala Arg Leu Leu Arg Pro Thr Leu Gln Phe Gly  
180 185 190

Leu Val Ala Val Ser Ile Tyr Val Gly Leu Ser Arg Val Ser Asp Tyr  
195 200 205

Lys His His Trp Ser Asp Val Leu Thr Gly Leu Ile Gln Gly Ala Leu  
210 215 220

Val Ala Ile Leu Val Ala Val Tyr Val Ser Asp Phe Phe Lys Glu Arg  
225 230 235 240

Thr Ser Phe Lys Glu Arg Lys Glu Glu Asp Ser His Thr Thr Leu His  
245 250 255

Glu Thr Pro Thr Thr Gly Asn His Tyr Pro Ser Asn His Gln Pro  
260 265 270

<210> 23  
<211> 840  
<212> DNA  
<213> Murinae gen. sp.

<220>  
<221> misc\_feature  
<222> (474)..(474)  
<223> n is a, c, g, or t

<400> 23  
ccgaagtaag ttgcccagtt ttctgtctta tactgaggtt cgccgggtca tggtgccagc

60

## 78063.txt

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ctgactgaga agaggacgct cccgggaaac gaatgaggaa ccacctcctc ctgctgttca 120
agtacagggg cctgggtgcg aaaggggaaga aaagcaaaag acgaaaatgg ctaaatttaa 180
gatccgtcca gccactgcct ctgactgcag tgacatcctg cgactgatca aggaactggc 240
taaatatgaa tacatggaag atcaagtcatt ttttaactgag aaagatctcc aagaggatgg 300
ctttggagaa cacccttctt accactgcct gggtgcagaa gtgcctaaag agcactggac 360
ccctgaagga catagcattg ttgggttcgc catgtactat ttacctatg acccatggat 420
tggcaagttg ctgtatcttg aagacttctt cgtgatgagt gattacagag gctntggtat 480
aggatcagaa attttgaaga atctaagcca gggtgccatg aagtgtcgct gcagcagtat 540
gcacttcttg gtagcagaat ggaatgaacc atctatcaac ttctacaaaa gaagaggtgc 600
ttcggtatctg tccagtgaag agggatggga ggctcttcaa gattgacaag agtacttgct 660
aaaaatggca gcagaggagt gaggcgtgcc ggtgtagaac atgacaacct ccattgtgct 720
ttagaataat tctcagcttc ctttgctttc tatcttggtg tgtaggtgaa ataatagagc 780
gagccaccat tccaaagctt tattaccagt gacgtgttgc atgtttgaaa tcggtctggt 840

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&lt;210&gt; 24

&lt;211&gt; 1052

&lt;212&gt; DNA

&lt;213&gt; Murinae gen. sp.

&lt;400&gt; 24

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gctgcgcagt ttccccgaag taagtttgcc agttttctgt cttatactga gggtcgccgg 60
gtcatgggtgc cagcctgact gagaagagga cgctccccgg aaacgaatga ggaaccacct 120
cctcctgctg ttcaagtaca ggggcctggt gcgcaaaggg aagaaaagca aaagacgaaa 180
atggctaaat ttaagatccg tccagccact gcctctgact gcagtgcacat cctgcgactg 240
atcaaggaac tggctaaata tgaatacatg gaagatcaag tcattttaac tgagaaagat 300
ctccaagagg atggccttgg agaacacccc ttctaccact gcctgggtgc agaagtgcct 360
aaagagcact ggaccctga aggacatagc attgttggtg tcgcatgta ctattttacc 420
tatgacccat ggattggcaa gttgctgtat cttgaagact tcttcgtgat gagtgattac 480
agaggctttg gtataggatc agaaattttg aagaatctaa gccagggtgc catgaagtgt 540
cgctgcagca gtatgcactt cttggtagca gaatggaatg aaccatctat caacttctac 600
aaaagaagag gtgcttcgga tctgtccagt gaagagggat ggaggctctt caagattgac 660
aaagagtact tgctaaaaat ggcagcagag gagtgaggcg tgccggtgta gacaatgaca 720
acctccattg tgcttttaga taattctcag cttcccttgc tttctatctt gtgtgtagtg 780
aaataataga gcgagcacc attccaaagc ttattacca gtgacgttgt tgcattgttg 840
aaattcggtc tgtttaaagt ggcagtcatt tatgtggttt ggaggcagaa ttcttgaaca 900

```

## 78063.txt

tctttttgatg aagaacaagg tggatgatc ttactatata agaaaaacaa aacttcattc 960  
 ttgtgagtca tttaaagtgtg tacaatgtac acactgggtac ttagagtttc tgttttgatt 1020  
 cttttttttt taaataaact actctttgat tt 1052

<210> 25  
 <211> 171  
 <212> PRT  
 <213> Murinae gen. sp.

<400> 25

Met Ala Lys Phe Lys Ile Arg Pro Ala Thr Ala Ser Asp Cys Ser Asp  
 1 5 10 15

Ile Leu Arg Leu Ile Lys Glu Leu Ala Lys Tyr Glu Tyr Met Glu Asp  
 20 25 30

Gln Val Ile Leu Thr Glu Lys Asp Leu Gln Glu Asp Gly Phe Gly Glu  
 35 40 45

His Pro Phe Tyr His Cys Leu Val Ala Glu Val Pro Lys Glu His Trp  
 50 55 60

Thr Pro Glu Gly His Ser Ile Val Gly Phe Ala Met Tyr Tyr Phe Thr  
 65 70 75 80

Tyr Asp Pro Trp Ile Gly Lys Leu Leu Tyr Leu Glu Asp Phe Phe Val  
 85 90 95

Met Ser Asp Tyr Arg Gly Phe Gly Ile Gly Ser Glu Ile Leu Lys Asn  
 100 105 110

Leu Ser Gln Val Ala Met Lys Cys Arg Cys Ser Ser Met His Phe Leu  
 115 120 125

Val Ala Glu Trp Asn Glu Pro Ser Ile Asn Phe Tyr Lys Arg Arg Gly  
 130 135 140

Ala Ser Asp Leu Ser Ser Glu Glu Gly Trp Arg Leu Phe Lys Ile Asp  
 145 150 155 160

Lys Glu Tyr Leu Leu Lys Met Ala Ala Glu Glu  
 165 170

<210> 26  
 <211> 1111  
 <212> DNA  
 <213> Homo sapiens

## 78063.txt

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<400> 26
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tcatggtgcc agcctgactg agaagaggac gctcccggga gacgaatgag gaaccacctc 120
ctcctactgt tcaagtacag gggcctggtc cgcaaaggga agaaaagcaa aagacgaaaa 180
tggctaaatt cgtgatccgc ccagccactg ccgccgactg cagtgcata ctgcggctga 240
tcaaggagct ggctaaatat gaatacatgg aagaacaagt aatcttaact gaaaaagatc 300
tgctagaaga tggttttgga gagcaccctt tttaccactg cctggttgca gaagtgccga 360
aagagcactg gactccggaa ggtaaccctt cggcctttcc agaagccaga gagaccaaca 420
ttgttggttt tgccatgtac tattttacct atgaccctgt gattggcaag ttattgtatc 480
ttgaggactt cttcgtgatg agtgattata gaggtacgat tgagctttgg cataggatca 540
gaaattctga agaattctaag ccaggttgca atgaggtgtc gctggcagca tgcacttctt 600
gggcagaatg gaatgaacca tccatcaact tctataaaaag aagaggtgct tctgatctgt 660
ccagtgaaga gggttggaga ctgttcaaga tcgacaagga gtacttgcta aaaatggcaa 720
cagaggagtg aggagtgtcg ctgtagatga caacctccat tctatttttag aataaattcc 780
caacttctct tgctttctat gctgtttgta gtgaaataat agaatgagca cccattccaa 840
agctttatta ccagtggcgt tgttgcattg ttgaaatgag gtctgtttta agtggcaatc 900
tcagatgcag tttggagagt cagatctttc tccttgaata tctttcgata aacaacaagg 960
tgggtgtgatc ttaatatatt tgaaaaaac ttcattctcg tgagtcattt aaatgtgtac 1020
aatgtacaca ctggtactta gagtttctgt ttgattcttt tttaataaac tactctttga 1080
tttaattcta aaaaaaaaaa aaaaaaagac a 1111

```

```

<210> 27
<211> 190
<212> PRT
<213> Homo sapiens

```

```

<400> 27

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Glu Pro Pro Pro Pro Thr Val Gln Val Gln Gly Pro Gly Pro Gln Arg
1 5 10 15

```

```

Glu Glu Lys Gln Lys Thr Lys Met Ala Lys Phe Val Ile Arg Pro Ala
20 25 30

```

```

Thr Ala Ala Asp Cys Ser Asp Ile Leu Arg Leu Ile Lys Glu Leu Ala
35 40 45

```

```

Lys Tyr Glu Tyr Met Glu Glu Gln Val Ile Leu Thr Glu Lys Asp Leu
50 55 60

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Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Val Ala  
65 70 75 80

Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly Asn Pro Ser Pro Phe  
85 90 95

Pro Glu Ala Arg Glu Thr Asn Ile Val Gly Phe Ala Met Tyr Tyr Phe  
100 105 110

Thr Tyr Asp Pro Trp Ile Gly Lys Leu Leu Tyr Leu Glu Asp Phe Phe  
115 120 125

Val Met Ser Asp Tyr Arg Gly Thr Ile Glu Leu Trp His Arg Ile Arg  
130 135 140

Asn Ser Glu Glu Ser Lys Pro Gly Cys Asn Glu Val Ser Leu Ala Ala  
145 150 155 160

Cys Thr Ser Trp Ala Glu Trp Asn Glu Pro Ser Ile Asn Phe Tyr Lys  
165 170 175

Arg Arg Gly Ala Ser Asp Leu Ser Ser Glu Glu Gly Trp Arg  
180 185 190

<210> 28

<211> 745

<212> DNA

<213> Murinae gen. sp.

<400> 28

aatctatgga gcagattcgg cgaattatga gaccaactga tgtaccagat caaggtcttc	60
tttgtgatct ttggtggtct gaccccgatg aaagatgtct taggctgggg tgaaaatgac	120
agaggagtgt ccttcacatt tgggtgcagaa gtggttgcaa aatttctcca taagcatgat	180
tcggatctta tatgtagagc ccatcaggtg gttgaagatg gctatgagtt tttcgcaaag	240
aggcagttag tcactctgtt gttctgcgag cccaactact gtggcgagtt tgacaatgca	300
ggcgccatga tgagtgtgga tgagaccctc atgtgttcct tccagatttt aaagcctgca	360
gagaaaaaga agcccaacgc cacgagacct gtcacaccac cacggggtat gatcacaag	420
caagcaaaga aatagatgtc acttgacact gcctgggttg gacttgtaac atagcgttca	480
taaccttcct ttttaaactg tgatgtgctg gtcagcttgc ccaggtagac ctgtctgtcg	540
ggccctcctc catttgatta ctgctggcac ttgctgggta tagcagcaag ccaagcatt	600
cattctcaag agagcatttg gttctgaacc tctgttcctt ttgtggacag ctctgatgat	660
ggtgttaagc tgtacaccct ggcaggttat cctgtctgag gagaaagtgt acaattgatc	720
tttttttagt ttagtataag tcatg	745

## 78063.txt

<210> 29  
 <211> 2127  
 <212> DNA  
 <213> Murinae gen. sp.

<400> 29  
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 acagcatcat ccaacggctg ctggaagtga gaggggtccaa gccaggcaag aatgtccagc 120  
 tccaggagaa cgagatccga ggactctgcc tgaagtctcg ggagatcttc ctcaagtcagc 180  
 ctatcctttt agaacttgaa gcaccactca agatatgtgg tgacatccac gggcagtact 240  
 atgatttgct ccgtctgttt gaatacgggtg gctttcctcc agagagcaac tatttgtttc 300  
 tcggggacta tgtggacagg ggcaagcagt ccctggagac aatctgcctc ttgctggcct 360  
 acaaaatcaa gtatccggag aacttctttc ttctcagagg gaaccacgag tgcgccagca 420  
 tcaataggat ctacggattt tatgatgagt gtaaaagaag atacaacatt aagctgtgga 480  
 aaacgttcac agactgtttt aactgcttgc cgatagcagc catcgtggac gagaagatat 540  
 tctgctgtca tggaggttta tcaccagatc ttcaatctat ggagcagatt cggcgaatta 600  
 tgagaccaac tgatgtacca gatcaagggtc ttctttgtga tcttttgtgg tctgaccccg 660  
 ataaagatgt cttaggctgg ggtgaaaatg acagaggagt gtccttcaca tttggtgcag 720  
 aagtggttgc aaaatttctc cataagcatg atttggatct tatatgtaga gcccatcagg 780  
 tggttgaaga tggctatgag ttttttgcaa agaggcagtt agtcactctg ttttctgcac 840  
 ccaactactg tggcgagttt gacaatgcag gcgccatgat gagtgtggat gagaccctca 900  
 tgtgttcctt ccagatttta aagcctgcag agaaaaagaa gccaacgcc acgagacctg 960  
 tcacaccacc acgggggatg atcacaaagc aagcaaagaa atagatgtca cttgacactg 1020  
 cctggttggg acttgtaaca tagcgttcat aaccttcctt tttaaactgt gatgtgctgg 1080  
 tcagcttgcc caggtagacc tgtctgtcgg gccctcctcc atttgattac tgctggcact 1140  
 tgctggttat agcagcaagc caagcacttc attctcaaga gagcattttg ttttgaacct 1200  
 ctgttccctt tgtggacagc tctgatgatg gtgttaagct gtacaccctg gcaggttatc 1260  
 ctgtctgagg agaaagtgtg caattgatct ttttttaatt tagtataagt catgaataat 1320  
 gtaaatagcct gttttcttta ggatataaag agagccttag agtgcgtgag tctctacatg 1380  
 taattgtcat aaatgcattc tgttgataca aaccactgtg aacaattttt tttccagttt 1440  
 gtttgaaagg gactgctttc cctcattgtc ttgtcatgta caaactagtg tctgcagctg 1500  
 tggcagcagg agtgacctgc ctgccgccag ccctgcccag actatctgaa gcacactcct 1560  
 tcccactgca catttaataa tgattaaagc cattcttttc aatgtctgtg attccttctc 1620  
 aaagccaaag tttctgttgg actgtatggc acgccctggg gatgaggtgg ccagggcatc 1680

## 78063.txt

gaggctgcgt gcacaggccg cctccctccg tggggcctca gaagcagggtt attttaacta 1740  
 gcaatagtggt tatagtgtcg agtaagctat taatgatgga agttaatgac actttgtaca 1800  
 gttcccatat agtctattca ctgagtgatc tttttacagt tggatcaggc ctgaaccggt 1860  
 ccattcagaa agcttcaaata tatagaaaca acactgtcct atacgagtga ccgataatgc 1920  
 tttctttggc tacattcttt attctgcggt gacattgagg cttataaatc aaaaggaact 1980  
 aacttgccgt ccaccggttt atacagaact cacagtatct atgacttttt taaactacga 2040  
 cctgttaaata gaatctgttt gcacagatgc ccgtgtacaa tgccatgtgc tgagaatggt 2100  
 ttcagactta ttaaatgcaa gcttggt 2127

<210> 30  
 <211> 323  
 <212> PRT  
 <213> Murinae gen. sp.

<400> 30

Met Ala Asp Ile Asp Lys Leu Asn Ile Asp Ser Ile Ile Gln Arg Leu  
1 5 10 15

Leu Glu Val Arg Gly Ser Lys Pro Gly Lys Asn Val Gln Leu Gln Glu  
20 25 30

Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser  
35 40 45

Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp  
50 55 60

Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly  
65 70 75 80

Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg  
85 90 95

Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile  
100 105 110

Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala  
115 120 125

Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr  
130 135 140

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro  
145 150 155 160

78063.txt

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu  
165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro  
180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp  
195 200 205

Pro Asp Lys Asp Val Leu Gly Trp Gly Glu Asn Asp Arg Gly Val Ser  
210 215 220

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp  
225 230 235 240

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu  
245 250 255

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr  
260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr  
275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Glu Lys Lys Lys Pro  
290 295 300

Asn Ala Thr Arg Pro Val Thr Pro Pro Arg Gly Met Ile Thr Lys Gln  
305 310 315 320

Ala Lys Lys

<210> 31  
<211> 993  
<212> DNA  
<213> Homo sapiens

<400> 31  
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ggctcgcggc ctggcaagaa tgtacagctg acagagaacg agatccgcgg tctgtgcctg 120  
aaatcccggg agatttttct gagccagccc attcttctgg agctggaggc acccctcaag 180  
atctgcggtg acatacacgg ccagtactac gaccttctgc gactatttga gtatggcggt 240  
ttccctcccg agagcaacta cctctttctg ggggactatg tggacagggg caagcagtcc 300  
ttggagacca tctgcctgct gctggcctat aagatcaagt accccgagaa cttcttctg 360



78063.txt

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ctccgtggga accacgagtg tgccagcatc aaccgcatct atggtttcta cgatgagtg 420
aagagacgct acaacatcaa actgtggaaa accttcaactg actgcttcaa ctgcctgccc 480
atcgcgggcca tagtggacga aaagatcttc tgctgccacg gaggcctgtc cccggacctg 540
cagtctatgg agcagattcg gcgcatcatg cggcccacag atgtgcctga ccagggcctg 600
ctgtgtgacc tgctgtggtc tgaccctgac aaggacgtgc agggctgggg cgagaacgac 660
cgtggcgtct cttttacctt tggagccgag gtggtggcca agttcctcca caagcacgac 720
ttggacctca tctgccgagc acaccaggtg gtagaagacg gctacgagtt ctttgccaag 780
cggcagctgg tgacactttt ctacgtctcc aactactgtg gcgagtttga caatgctggc 840
gccatgatga gtgtggacga gaccctcatg tgctctttcc agatcctcaa gcccgccgac 900
aagaacaagg ggaagtacgg gcagttcagt ggctgaacc ctggaggccg acccatcacc 960
ccaccccgca attccgcaa agccaagaaa tag 993
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<210> 32
<211> 330
<212> PRT
<213> Homo sapiens
<400> 32
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Met Ser Asp Ser Glu Lys Leu Asn Leu Asp Ser Ile Ile Gly Arg Leu
1 5 10 15
Leu Glu Val Gln Gly Ser Arg Pro Gly Lys Asn Val Gln Leu Thr Glu
20 25 30
Asn Glu Ile Arg Gly Leu Cys Leu Lys Ser Arg Glu Ile Phe Leu Ser
35 40 45
Gln Pro Ile Leu Leu Glu Leu Glu Ala Pro Leu Lys Ile Cys Gly Asp
50 55 60
Ile His Gly Gln Tyr Tyr Asp Leu Leu Arg Leu Phe Glu Tyr Gly Gly
65 70 75 80
Phe Pro Pro Glu Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg
85 90 95
Gly Lys Gln Ser Leu Glu Thr Ile Cys Leu Leu Leu Ala Tyr Lys Ile
100 105 110
Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu Cys Ala
115 120 125
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Ser Ile Asn Arg Ile Tyr Gly Phe Tyr Asp Glu Cys Lys Arg Arg Tyr  
 130 135 140

Asn Ile Lys Leu Trp Lys Thr Phe Thr Asp Cys Phe Asn Cys Leu Pro  
 145 150 155 160

Ile Ala Ala Ile Val Asp Glu Lys Ile Phe Cys Cys His Gly Gly Leu  
 165 170 175

Ser Pro Asp Leu Gln Ser Met Glu Gln Ile Arg Arg Ile Met Arg Pro  
 180 185 190

Thr Asp Val Pro Asp Gln Gly Leu Leu Cys Asp Leu Leu Trp Ser Asp  
 195 200 205

Pro Asp Lys Asp Val Gln Gly Trp Gly Glu Asn Asp Arg Gly Val Ser  
 210 215 220

Phe Thr Phe Gly Ala Glu Val Val Ala Lys Phe Leu His Lys His Asp  
 225 230 235 240

Leu Asp Leu Ile Cys Arg Ala His Gln Val Val Glu Asp Gly Tyr Glu  
 245 250 255

Phe Phe Ala Lys Arg Gln Leu Val Thr Leu Phe Ser Ala Pro Asn Tyr  
 260 265 270

Cys Gly Glu Phe Asp Asn Ala Gly Ala Met Met Ser Val Asp Glu Thr  
 275 280 285

Leu Met Cys Ser Phe Gln Ile Leu Lys Pro Ala Asp Lys Asn Lys Gly  
 290 295 300

Lys Tyr Gly Gln Phe Ser Gly Leu Asn Pro Gly Gly Arg Pro Ile Thr  
 305 310 315 320

Pro Pro Arg Asn Ser Ala Lys Ala Lys Lys  
 325 330

<210> 33  
 <211> 747  
 <212> DNA  
 <213> Murinae gen. sp.

<220>  
 <221> misc\_feature  
 <222> (298)..(298)  
 <223> n is a, c, g, or t

## 78063.txt

<400> 33  
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tgcgtatttg ttgagctggg agagtagccc agtggtacag cggccacctg gaatacttga 180  
ggacctgggg ttgtctcca gactgcaaa aggaaaattc actgttacag tcttccttgc 240  
acttaaacca gctttgtcta ttgttttttt ggtttggtt ttgtactttt gttgctgntt 300  
atTTTTgttg ttgttgtttg tttgtttgag acagggtttt tttgctagcc ctgactgtcc 360  
tgaaactccc tctgtagacc aggctggcct caaacttaca gagatccgcc tgcctcagcc 420  
tcccaagtgc tgggaataat ggtgtggtca ccaccgcca gccttttgtc tttttttaa 480  
cttgaaagaa acaacagccc agatttcaaa aataatataa tgcacttata ctaaaaaaa 540  
caaccaggag tgcccagtta ataactttt ttaaatgtgg ggatgggaag ggcattagag 600  
gagtcttcct tctattgaag attcattaaa gtatttaaga tatgcccttt cactctttat 660  
ataaatccaa gatttttctt tgctgaagta tttaaaactt ttgtaccttt atatgtagat 720  
atgaatttga aaatatgctt atgtgta 747

<210> 34  
<211> 2021  
<212> DNA  
<213> Murinae gen. sp.

<400> 34  
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gcagaccgag caaacactcc cagcgccaaa gatcgggact gtggggaatc tgcagggcc 120  
agttccaagc tctctgggaa ccggaacggc agggaaagcc gagcgggcgg cctgaaggag 180  
agaagcaatg gatcagaggg ggctccaagt gaaggaagg taagtccaaa gagcagcgtt 240  
cctgagactg gcctgataga ctgcagcact tcacaggccg ccagttctcc agaaccaacc 300  
agcctcaagg gctccacatc tctgcctgtt cactcagctt ccagagctag gaaagagcag 360  
ggtgctggca gccattccga cgcttgaaga aaactgtctc gttccccag aagcacatgt 420  
atgttacact ggagatgacc aactgatttg tcttataaag gccactgttg agctgggaga 480  
gtagcccagt ggtacagcgc ccacctggaa tacttgagga cctgggggtg tctccagca 540  
ctgcaaaaagg aaaattcact gttacagtct tccttgact taaaccagct ttgtctattg 600  
tttttttggg ttggctttta tttttgttgc tgttattttt gttgttgttt gtttgttttt 660  
ttgtttgttt gtttgagaca gggtttcttt gctagccctg actgtcctga aactccctct 720  
gtagaccagg ctggcctcaa acttacagag atctgcctgc ctcagcctcc cgagtgtgg 780  
gaataatggg gtggtcacca ctgcccagcc ttttgtctgt ttttaaactt gaaagaaaca 840  
acagcccaga tttcaaaaat aatataatgc atttatacct aaaaaaccaa ccaggagtgc 900

## 78063.txt

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ccagttaata acacttttta aatgtgggga tgggaagggc attagaggag tcttccttct 960
attgaagatt cattaaagta ttttaagata tgctctttca ctctttatat aaatccaaga 1020
tttttccttg ctgaagtatt taaaactttt gtacctttat atgtagatat gaatttgaaa 1080
atatgcttat gtgtatttga acttttgaaa atcctagaga attgaatcaa atatttttat 1140
gatgtttttc tactatttta gctactttgc gactgtgata gctgttacac tggattttta 1200
aaaaacttgt acagcagcct ctttacagta aaaagagtgg gtgtcacact gaaaggtctg 1260
taagaagtgg tcacagccac ccctaccttc cccaaaagga ggaacttggg ggcaggtccc 1320
tccctgattg gactgtccct ttctttctgc atgttataaa tcagcaggta agatggtagg 1380
tttttacaag ttaggccgag ctgtcgattc cccttttaag tgttgaatta ggattgaatt 1440
atggccattt gtagttgctc gtgcctgtct ttatttttagt attttatttc ccgagacagg 1500
aactcactgt gtgggtgctc ttggctgtct ggtgttcagt ctgtcccagg caggtcacag 1560
agatctcccc ctctgcagcc cactcatctc tcccaagcca ccacactcag cttttatctg 1620
ttttaaaaat ttaaacttaa aaaaatgttt ttggaatagt acaaacacat tgtgttgtaa 1680
atttctttga tgctatgcaa aattcctatc tgcatctaag cctgcaaaag aaaatgtgcg 1740
aagggcagag tcagagttgg gcaggaagag tgtagtgcag cagatgcagc gtgaagacac 1800
tgaaggtgct aagacagcgt ctcagtgtcg gtcctcctta aggattatct cgccagcgag 1860
gttttcttag atactttgat ccattggag ctctgttaaa gtttaaaatg aaaattatca 1920
tgtactgtat gggaaatgta aatactaact tttccacata tgtaaacttc agacacaaat 1980
ttttttgtgt gttcttttca tcaataaaat tttctttgta t 2021

```

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<210> 35
<211> 709
<212> PRT
<213> Murinae gen. sp.

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<400> 35
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Met Glu Arg Ser Pro Phe Leu Leu Ala Cys Ile Leu Leu Pro Leu Val
1           5           10           15

```

```

Arg Gly His Ser Leu Phe Thr Cys Glu Pro Ile Thr Val Pro Arg Cys
          20           25           30

```

```

Met Lys Met Thr Tyr Asn Met Thr Phe Phe Pro Asn Leu Met Gly His
          35           40           45

```

```

Tyr Asp Gln Gly Ile Ala Ala Val Glu Met Gly His Phe Leu His Leu
          50           55           60

```

Ala Asn Leu Glu Cys Ser Pro Asn Ile Glu Met Phe Leu Cys Gln Ala  
 65 70 75 80  
 Phe Ile Pro Thr Cys Thr Glu Gln Ile His Val Val Leu Pro Cys Arg  
 85 90 95  
 Lys Leu Cys Glu Lys Ile Val Ser Asp Cys Lys Lys Leu Met Asp Thr  
 100 105 110  
 Phe Gly Ile Arg Trp Pro Glu Glu Leu Glu Cys Asn Arg Leu Pro His  
 115 120 125  
 Cys Asp Asp Thr Val Pro Val Thr Ser His Pro His Thr Glu Leu Ser  
 130 135 140  
 Gly Pro Gln Lys Lys Ser Asp Gln Val Pro Arg Asp Ile Gly Phe Trp  
 145 150 155 160  
 Cys Pro Lys His Leu Arg Thr Ser Gly Asp Gln Gly Tyr Arg Phe Leu  
 165 170 175  
 Gly Ile Glu Gln Cys Ala Pro Pro Cys Pro Asn Met Tyr Phe Lys Ser  
 180 185 190  
 Asp Glu Leu Asp Phe Ala Lys Ser Phe Ile Gly Ile Val Ser Ile Phe  
 195 200 205  
 Cys Leu Cys Ala Thr Leu Phe Thr Phe Leu Thr Phe Leu Ile Asp Val  
 210 215 220  
 Arg Arg Phe Arg Tyr Pro Glu Arg Pro Ile Ile Tyr Tyr Ser Val Cys  
 225 230 235 240  
 Tyr Ser Ile Val Ser Leu Met Tyr Phe Val Gly Phe Leu Leu Gly Asn  
 245 250 255  
 Ser Thr Ala Cys Asn Lys Ala Asp Glu Lys Leu Glu Leu Gly Asp Thr  
 260 265 270  
 Val Val Leu Gly Ser Lys Asn Lys Ala Cys Ser Val Val Phe Met Phe  
 275 280 285  
 Leu Tyr Phe Phe Thr Met Ala Gly Thr Val Trp Trp Val Ile Leu Thr  
 290 295 300  
 Ile Thr Trp Phe Leu Ala Ala Gly Arg Lys Trp Ser Cys Glu Ala Ile  
 305 310 315 320

## 78063.txt

Glu Gln Lys Ala Val Trp Phe His Ala Val Ala Trp Gly Ala Pro Gly  
 325 330 335  
 Phe Leu Thr Val Met Leu Leu Ala Met Asn Lys Val Glu Gly Asp Asn  
 340 345 350  
 Ile Ser Gly Val Cys Phe Val Gly Leu Tyr Asp Leu Asp Ala Ser Arg  
 355 360 365  
 Tyr Phe Val Leu Leu Pro Leu Cys Leu Cys Val Phe Val Gly Leu Ser  
 370 375 380  
 Leu Leu Leu Ala Gly Ile Ile Ser Leu Asn His Val Arg Gln Val Ile  
 385 390 395 400  
 Gln His Asp Gly Arg Asn Gln Glu Lys Leu Lys Lys Phe Met Ile Arg  
 405 410 415  
 Ile Gly Val Phe Ser Gly Leu Tyr Leu Val Pro Leu Val Thr Leu Leu  
 420 425 430  
 Gly Cys Tyr Val Tyr Glu Leu Val Asn Arg Ile Thr Trp Glu Met Thr  
 435 440 445  
 Trp Phe Ser Asp His Cys His Gln Tyr Arg Ile Pro Cys Pro Tyr Gln  
 450 455 460  
 Ala Asn Pro Lys Ala Arg Pro Glu Leu Ala Leu Phe Met Ile Lys Tyr  
 465 470 475 480  
 Leu Met Thr Leu Ile Val Gly Ile Ser Ala Val Phe Trp Val Gly Ser  
 485 490 495  
 Lys Lys Thr Cys Thr Glu Trp Ala Gly Phe Phe Lys Arg Asn Arg Lys  
 500 505 510  
 Arg Asp Pro Ile Ser Glu Ser Arg Arg Val Leu Gln Glu Ser Cys Glu  
 515 520 525  
 Phe Phe Leu Lys His Asn Ser Lys Val Lys His Lys Lys Lys His Gly  
 530 535 540  
 Ala Pro Gly Pro His Arg Leu Lys Val Ile Ser Lys Ser Met Gly Thr  
 545 550 555 560  
 Ser Thr Gly Ala Thr Thr Asn His Gly Thr Ser Ala Met Ala Ile Ala  
 565 570 575

78063.txt

Asp His Asp Tyr Leu Gly Gln Glu Thr Ser Thr Glu Val His Thr Ser  
580 585 590

Pro Glu Ala Ser Val Lys Glu Gly Arg Ala Asp Arg Ala Asn Thr Pro  
595 600 605

Ser Ala Lys Asp Arg Asp Cys Gly Glu Ser Ala Gly Pro Ser Ser Lys  
610 615 620

Leu Ser Gly Asn Arg Asn Gly Arg Glu Ser Arg Ala Gly Gly Leu Lys  
625 630 635 640

Glu Arg Ser Asn Gly Ser Glu Gly Ala Pro Ser Glu Gly Arg Val Ser  
645 650 655

Pro Lys Ser Ser Val Pro Glu Thr Gly Leu Ile Asp Cys Ser Thr Ser  
660 665 670

Gln Ala Ala Ser Ser Pro Glu Pro Thr Ser Leu Lys Gly Ser Thr Ser  
675 680 685

Leu Pro Val His Ser Ala Ser Arg Ala Arg Lys Glu Gln Gly Ala Gly  
690 695 700

Ser His Ser Asp Ala  
705

<210> 36  
<211> 2039  
<212> DNA  
<213> Homo sapiens

<400> 36  
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cattatttcc ttaaatacatg ttcgacaagt catacaacat gatggccgga accaagaaaa 180  
actaaagaaa tttatgattc gaattggagt cttcagcggc ttgtatcttg tgccattagt 240  
gacacttctc ggatgttacg tctatgagca agtgaacagg attacctggg agataacttg 300  
ggctctctgat cattgtcgtc agtaccatat cccatgtcct tatcaggcaa aagcaaaagc 360  
tcgaccagaa ttggctttat ttatgataaa atacctgatg acattaattg ttggcatctc 420  
tgctgtcttc tgggttgga gcaaaaagac atgcacagaa tgggctgggt tttttaaacg 480  
aaatcgcaag agagatccaa tcagtgaag tcgaagagta ctacaggaat catgtgagtt 540  
tttcttaaag cacaattcta aagttaaaca caaaaagaag cactataaac caagttcaca 600

## 78063.txt

```

caagctgaag gtcattttcca aatccatggg aaccagcaca ggagctacag caaatcatgg 660
cactttctgca gtagcaatta ctagccatga ttacctagga caagaaactt tgacagaaat 720
ccaaacctca ccagaaacat caatgagaga ggtgaaagcg gacggagcta gcacccccag 780
gttaagagaa caggactgtg gtgaacctgc ctcgccagca gcatccatct ccagactctc 840
tggggaacag gtcgacggga agggccaggc aggcagtgtg tctgaaagtg cgcggagtga 900
aggaaggatt agtccaaaga gtgatattac tgacactggc ctggcacaga gcaacaattt 960
gcagggtcccc agttcttcag aaccaagcag cctcaaaggt tccacatctc tgcttgttca 1020
cccggtttca ggagtgaaga aagagcaggg aggtggttgt cattcagata cttgaagaac 1080
atcttctctc gttactcaga agcaaatttg tgttactctg gaagtgcact atgcactggt 1140
ttgtaagaat cactgttaca ttcttctttt gcacttaaag ttgcattgcc tactgttata 1200
ctggaaaaaa tagagttcaa gaataatatg actcatttca cacaaagggt aatgacaaca 1260
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aagatgtact atgctatttt acttttttga tataaaatca agatatttct ttgctgaagt 1440
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aacttttttg aaatcctatt caagtatttt tatcatgcta ttgtgatatt ttagcacttt 1560
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aaaagatata ccaaaaagtc ttataatagg aatttaactt taaaaacca cttattgata 1680
ccttaccatc taaaatgtgt gatttttata gtctcgtttt aggaatttca cagatctaaa 1740
ttatgtaact gaaataaggt gcttactcaa agagtgtcca ctattgattg tattatgctg 1800
ctcactgatc cttctgcata tttaaaataa aatgtcctaa agggttagta gacaaaatgt 1860
tagtcttttg tatattaggc caagtgcaat tgacttcctt tttttaatgt ttcatgacca 1920
cccattgatt gtattataac cacttacagt tgcttatatt ttttgtttta acttttgttt 1980
tttaacattt agaatattac attttgtatt atacagtacc tttctcagac attttgtag 2039

```

```

<210> 37
<211> 706
<212> PRT
<213> Homo sapiens
<400> 37

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Met Glu Met Phe Thr Phe Leu Leu Thr Cys Ile Phe Leu Pro Leu Leu
1           5           10          15

```

```

Arg Gly His Ser Leu Phe Thr Cys Glu Pro Ile Thr Val Pro Arg Cys
20          25          30

```



Met Lys Met Ala Tyr Asn Met Thr Phe Phe Pro Asn Leu Met Gly His  
 35 40 45  
 Tyr Asp Gln Ser Ile Ala Ala Val Glu Met Glu His Phe Leu Pro Leu  
 50 55 60  
 Ala Asn Leu Glu Cys Ser Pro Asn Ile Glu Thr Phe Leu Cys Lys Ala  
 65 70 75 80  
 Phe Val Pro Thr Cys Ile Glu Gln Ile His Val Val Pro Pro Cys Arg  
 85 90 95  
 Lys Leu Cys Glu Lys Val Tyr Ser Asp Cys Lys Lys Leu Ile Asp Thr  
 100 105 110  
 Phe Gly Ile Arg Trp Pro Glu Glu Leu Glu Cys Asp Arg Leu Gln Tyr  
 115 120 125  
 Cys Asp Glu Thr Val Pro Val Thr Phe Asp Pro His Thr Glu Phe Leu  
 130 135 140  
 Gly Pro Gln Lys Lys Thr Glu Gln Val Gln Arg Asp Ile Gly Phe Trp  
 145 150 155 160  
 Cys Pro Arg His Leu Lys Thr Ser Gly Gly Gln Gly Tyr Lys Phe Leu  
 165 170 175  
 Gly Ile Asp Gln Cys Ala Pro Pro Cys Pro Asn Met Tyr Phe Lys Ser  
 180 185 190  
 Asp Glu Leu Glu Phe Ala Lys Ser Phe Ile Gly Thr Val Ser Ile Phe  
 195 200 205  
 Cys Leu Cys Ala Thr Leu Phe Thr Phe Leu Thr Phe Leu Ile Asp Val  
 210 215 220  
 Arg Arg Phe Arg Tyr Pro Glu Arg Pro Ile Ile Tyr Tyr Ser Val Cys  
 225 230 235 240  
 Tyr Ser Ile Val Ser Leu Met Tyr Phe Ile Gly Phe Leu Leu Gly Asp  
 245 250 255  
 Ser Thr Ala Cys Asn Lys Ala Asp Glu Lys Leu Glu Leu Gly Asp Thr  
 260 265 270  
 Val Val Leu Gly Ser Gln Asn Lys Ala Cys Thr Val Leu Phe Met Leu  
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280

285

Leu Tyr Phe Phe Thr Met Ala Gly Thr Val Trp Trp Val Ile Leu Thr  
 290 295 300  
 Ile Thr Trp Phe Leu Ala Ala Gly Arg Lys Trp Ser Cys Glu Ala Ile  
 305 310 315 320  
 Glu Gln Lys Ala Val Trp Phe His Ala Val Ala Trp Gly Thr Pro Gly  
 325 330 335  
 Phe Leu Thr Val Met Leu Leu Ala Met Asn Lys Val Glu Gly Asp Asn  
 340 345 350  
 Ile Ser Gly Val Cys Phe Val Gly Leu Tyr Asp Leu Asp Ala Ser Arg  
 355 360 365  
 Tyr Phe Val Leu Leu Pro Leu Cys Leu Cys Val Phe Val Gly Leu Ser  
 370 375 380  
 Leu Leu Leu Ala Gly Ile Ile Ser Leu Asn His Val Arg Gln Val Ile  
 385 390 395 400  
 Gln His Asp Gly Arg Asn Gln Glu Lys Leu Lys Lys Phe Met Ile Arg  
 405 410 415  
 Ile Gly Val Phe Ser Gly Leu Tyr Leu Val Pro Leu Val Thr Leu Leu  
 420 425 430  
 Gly Cys Tyr Val Tyr Glu Gln Val Asn Arg Ile Thr Trp Glu Ile Thr  
 435 440 445  
 Trp Val Ser Asp His Cys Arg Gln Tyr His Ile Pro Cys Pro Tyr Gln  
 450 455 460  
 Ala Lys Ala Lys Ala Arg Pro Glu Leu Ala Leu Phe Met Ile Lys Tyr  
 465 470 475 480  
 Leu Met Thr Leu Ile Val Gly Ile Ser Ala Val Phe Trp Val Gly Ser  
 485 490 495  
 Lys Lys Thr Cys Thr Glu Trp Ala Gly Phe Phe Lys Arg Asn Arg Lys  
 500 505 510  
 Arg Asp Pro Ile Ser Glu Ser Arg Arg Val Leu Gln Glu Ser Cys Glu  
 515 520 525

Phe Phe Leu Lys His Asn Ser Lys Val Lys His Lys Lys His Tyr  
 530 535 540

Lys Pro Ser Ser His Lys Leu Lys Val Ile Ser Lys Ser Met Gly Thr  
 545 550 555 560

Ser Thr Gly Ala Thr Ala Asn His Gly Thr Ser Ala Val Ala Ile Thr  
 565 570 575

Ser His Asp Tyr Leu Gly Gln Glu Thr Leu Thr Glu Ile Gln Thr Ser  
 580 585 590

Pro Glu Thr Ser Met Arg Glu Val Lys Ala Asp Gly Ala Ser Thr Pro  
 595 600 605

Arg Leu Arg Glu Gln Asp Cys Gly Glu Pro Ala Ser Pro Ala Ala Ser  
 610 615 620

Ile Ser Arg Leu Ser Gly Glu Gln Val Asp Gly Lys Gly Gln Ala Gly  
 625 630 635 640

Ser Val Ser Glu Ser Ala Arg Ser Glu Gly Arg Ile Ser Pro Lys Ser  
 645 650 655

Asp Ile Thr Asp Thr Gly Leu Ala Gln Ser Asn Asn Leu Gln Val Pro  
 660 665 670

Ser Ser Ser Glu Pro Ser Ser Leu Lys Gly Ser Thr Ser Leu Leu Val  
 675 680 685

His Pro Val Ser Gly Val Arg Lys Glu Gln Gly Gly Gly Cys His Ser  
 690 695 700

Asp Thr  
 705

<210> 38

<211> 773

<212> DNA

<213> Murinae gen. sp.

<400> 38

ctgaggtgct agcaccagcc tggttgtctc tggcgggcct gaagcaagca tggatcaaga 60

ggctgtgggc aacgttgtgc tcctggccct tgtcaccctc atcagcgtgg tccagaatgc 120

gttctttgcc cacaaggtgg agcatgaaag caaggcgc atatggggagaa gcttccagag 180

gaccgggact cttgcctttg agcgggtcta cactgccaac cagaactgcg tagatgcgta 240

ccccactttc cttgtggtac tctggactgc aggactactt tgcagccaag tccttcgagc 300

## 78063.txt

```

cttcgccgga ctgatgtacc tgtttgtgag gcaaaaatac tttgtcggct atctgggaga 360
gagaactcag agcaccacctg gctacatctt cggcaagcgg atcatcctgt tcctgttcct 420
catgtccttc gccgggatac tcaaccatta cctcatcttc ttcttcggaa gcgactttga 480
gaactacatc agaacggtaa gcacgacgat ctccccgctg cttctcatcc cctgattgct 540
ggagacagag aaggacgctc accagatcaa tagagacgca tcataacgca acgccgcgaa 600
ggcttctgct cctcttcaag ctgtagatgc tgtcaatctt gctgccctcg gggctctgtg 660
gcatccgtta actttgcttt tccgggaaga aaaatgtctt gtgctaagct ccaccctcg 720
aatgcggcgg tgggccagga tttatgtcta catccagcct atacttctcc tgg 773

```

```

<210> 39
<211> 852
<212> DNA
<213> Murinae gen. sp.

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<400> 39
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tcaagaggct gtgggcaacg ttgtgctcct ggcccttgct accctcatca gcgtggtcca 120
gaatgtgttt tttgcccact atgtggagca tgaaagcaat gcgcataatg ggagaagctt 180
ccagaggacc gggactcttg cttttgagcg ggtctacact gccaccaga actgcgtaga 240
tgcgtacccc actttccttg tggactctg gactgcagga ctactttgca gccaagtccc 300
tgccgccttc gccggactga tgtacctgtt tgtgaggcaa aaatactttg tcggctatct 360
gggagagaga actcagagca cccctggcta catcttcggc aagcggatca tcctgttcct 420
gttcctcatg tccttcgccg ggatactcaa ccattacctc atcttcttct tcggaagcga 480
ctttgagaac tacatcagaa cggtaaagcac gacgatctcc ccgctgcttc tcatcccctg 540
attgctggag acagagaagg acgctcacca gatcaataga gacgcatcat aacgcaacgc 600
cgcgaaggct tctgctcctc ttcaagctgt agatgctgtc aatcttgctg ccctcggggc 660
tctgtggcat ccgttaactt tgcttttccg ggaagaaaaa tgtcttgctg tagctccacc 720
cctcgaatgc ggcggtggcc caggatttat tgtctacatc cagcctatac ttctcctggc 780
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tagacaaaat tt 852

```

```

<210> 40
<211> 161
<212> PRT
<213> Murinae gen. sp.

```

```
<400> 40
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Met Asp Gln Glu Ala Val Gly Asn Val Val Leu Leu Ala Leu Val Thr

1                      5                      10                      15  
 Leu Ile Ser Val Val Gln Asn Val Phe Phe Ala His Tyr Val Glu His  
                     20                      25                      30  
 Glu Ser Asn Ala His Asn Gly Arg Ser Phe Gln Arg Thr Gly Thr Leu  
                     35                      40                      45  
 Ala Phe Glu Arg Val Tyr Thr Ala Asn Gln Asn Cys Val Asp Ala Tyr  
                     50                      55                      60  
 Pro Thr Phe Leu Val Val Leu Trp Thr Ala Gly Leu Leu Cys Ser Gln  
                     65                      70                      75                      80  
 Val Pro Ala Ala Phe Ala Gly Leu Met Tyr Leu Phe Val Arg Gln Lys  
                     85                      90                      95  
 Tyr Phe Val Gly Tyr Leu Gly Glu Arg Thr Gln Ser Thr Pro Gly Tyr  
                     100                      105                      110  
 Ile Phe Gly Lys Arg Ile Ile Leu Phe Leu Phe Leu Met Ser Phe Ala  
                     115                      120                      125  
 Gly Ile Leu Asn His Tyr Leu Ile Phe Phe Phe Gly Ser Asp Phe Glu  
                     130                      135                      140  
 Asn Tyr Ile Arg Thr Val Ser Thr Thr Ile Ser Pro Leu Leu Leu Ile  
                     145                      150                      155                      160

Pro

<210> 41  
 <211> 873  
 <212> DNA  
 <213> Homo sapiens

<400> 41  
 acttcccctt cctgtacagg gcaggttgtg cagctggagg cagagcagtc ctctctgggg 60  
 agcctgaagc aaacatggat caagaaactg taggcaatgt tgtcctgttg gccatcgta 120  
 ccctcatcag cgtggtccag aatggattct ttgccataa agtggagcac gaaagcagga 180  
 cccagaatgg gaggagcttc cagaggaccg gaacacttgc ctttgagcgg gtctacactg 240  
 ccaaccagaa ctgtgtagat gcgtacccca ctttcctcgc tgtgctctgg tctgcggggc 300  
 tactttgcag ccaagttcct gctgcgtttg ctggactgat gtacttgttt gtgaggcaaa 360  
 agtactttgt cggttaccta ggagagagaa cgcagagcac ccctggctac atatttgga 420

## 78063.txt

aacgcatcat actcttcctg ttcctcatgt ccgttgctgg catattcaac tattacctca 480  
tcttcttttt cggaagtgc tttgaaaact acataaagac gatctccacc accatctccc 540  
ctctacttct cattccctaa ctctctgctg aatatggggt tgggtgttctc atctaataa 600  
tacctacaag tcatacataat tcagctcttg agagcattct gctcttcttt agatggctgt 660  
aaatctattg gccatctggg cttcacagct tgagttaacc ttgcttttcc gggaacaaaa 720  
tgatgtcatg tcagctccgc cccttgaaca tgaccgtggc cccaaatttg ctattcccat 780  
gcattttgtt tgtttcttca cttatcctgt tctctgaaga tgttttgtga ccagggttgt 840  
gttttcttaa aataaaatgc agagacatgt ttt 873

<210> 42  
<211> 161  
<212> PRT  
<213> Homo sapiens

<400> 42

Met Asp Gln Glu Thr Val Gly Asn Val Val Leu Leu Ala Ile Val Thr  
1 5 10 15

Leu Ile Ser Val Val Gln Asn Gly Phe Phe Ala His Lys Val Glu His  
20 25 30

Glu Ser Arg Thr Gln Asn Gly Arg Ser Phe Gln Arg Thr Gly Thr Leu  
35 40 45

Ala Phe Glu Arg Val Tyr Thr Ala Asn Gln Asn Cys Val Asp Ala Tyr  
50 55 60

Pro Thr Phe Leu Ala Val Leu Trp Ser Ala Gly Leu Leu Cys Ser Gln  
65 70 75 80

Val Pro Ala Ala Phe Ala Gly Leu Met Tyr Leu Phe Val Arg Gln Lys  
85 90 95

Tyr Phe Val Gly Tyr Leu Gly Glu Arg Thr Gln Ser Thr Pro Gly Tyr  
100 105 110

Ile Phe Gly Lys Arg Ile Ile Leu Phe Leu Phe Leu Met Ser Val Ala  
115 120 125

Gly Ile Phe Asn Tyr Tyr Leu Ile Phe Phe Phe Gly Ser Asp Phe Glu  
130 135 140

Asn Tyr Ile Lys Thr Ile Ser Thr Thr Ile Ser Pro Leu Leu Leu Ile  
145 150 155 160

Pro

<210> 43  
 <211> 803  
 <212> DNA  
 <213> Murinae gen. sp.

<400> 43  
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 tacggaacac atttcatgtt tcctttgaag agttaagaga agaaagtatt tgtaagaaca 180  
 ggaaaagaaa caaatacttt gcaaataaac tggctgctgc tgtgaccaca tctgaatagc 240  
 aaaggcgatc gatcaagcgc tgcggacaaa aggcctcctg taagctgcac tgcctgacaa 300  
 tggttaagctc caatggctcc cagtgccctt atgacgactc ctttaagtac actctgtacg 360  
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 tgtcagattt acttttcgtc tttactttgc catttcggat tttttacttt gcaacacgga 540  
 attggccatt tggagatcta ctctgtaaga tttcagtaat gctgttttac accaatatgt 600  
 atgggaagca ttctgttctt aacctgtatc agtgtagatc gattttctggc aattgtctac 660  
 ccatttaagt caaagacttt aagaaacgaa acgaaaatgc aaagaatcgt ttgcattgcc 720  
 tgtgtggttc acagtgatgg gaggaagtgc gctgcagttt tctttcagtc gacccactct 780  
 caggggaaca atactcagaa gct 803

<210> 44  
 <211> 1849  
 <212> DNA  
 <213> Murinae gen. sp.

<400> 44  
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 cgcgaacatg cttaggaatt tatctgggat cccttaaacy actgcctatc gccgtccgga 120  
 atcaatgtag aaatacaaag tttgagaata aaaagaagga agaagtaccc gaggacgacg 180  
 ggcggacgga cgcacggcga gtgtttgtga ctgaagtaaa gctggtttgg accctggcgg 240  
 ctgaagcaca agtttccacg cggactggctc tgggccgact tggaacagtt tttccttaca 300  
 ctttcagctt tatgggttgg cttccttgac tgcattttct gtcagttaac taaactccag 360  
 actcatggat tttctcgacc agaaaatcag actattttcc tgaataatct actagaaact 420  
 ttacggaac acatttcatg tttcctttga agagttaaga gaagaaagta tttgtaagaa 480  
 caggaaaaga aacaaatact ttgcaaataa actggctgct gctgtgacca catctgaata 540

## 78063.txt

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gcaaaggcga tcgatcaagc gctgcgga aaaggcctcc tgtaagctgc actgcctgac 600
aatggtaagc tccaatggct cccagtggcc ttatgacgac tcctttaagt acactctgta 660
cgggtgcatg ttcagcatgg tcttcgtgct tgggctgata tccaactgtg ttgcatata 720
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 <212> PRT  
 <213> Murinae gen. sp.

<400> 45

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Phe Val Leu Gly Leu Ile Ser Asn Cys Val Ala Ile Tyr Ile Phe Ile  
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Cys Ala Leu Lys Val Arg Asn Glu Thr Thr Thr Tyr Met Ile Asn Leu  
 35 40 45



## 78063.txt

Ala Met Ser Asp Leu Leu Phe Val Phe Thr Leu Pro Phe Arg Ile Phe  
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 Tyr Phe Ala Thr Arg Asn Trp Pro Phe Gly Asp Leu Leu Cys Lys Ile  
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 Ser Val Met Leu Phe Tyr Thr Asn Met Tyr Gly Ser Ile Leu Phe Leu  
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 Thr Cys Ile Ser Val Asp Arg Phe Leu Ala Ile Val Tyr Pro Phe Lys  
 100 105 110  
 Ser Lys Thr Leu Arg Thr Lys Arg Asn Ala Lys Ile Val Cys Ile Ala  
 115 120 125  
 Val Trp Phe Thr Val Met Gly Gly Ser Ala Pro Ala Val Phe Phe Gln  
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 Ser Thr His Ser Gln Gly Asn Asn Thr Ser Glu Ala Cys Phe Glu Asn  
 145 150 155 160  
 Phe Pro Ala Ala Thr Trp Lys Thr Tyr Leu Ser Arg Ile Val Ile Phe  
 165 170 175  
 Ile Glu Ile Val Gly Phe Phe Ile Pro Leu Ile Leu Asn Val Thr Cys  
 180 185 190  
 Ser Ser Met Val Leu Arg Thr Leu Asn Lys Pro Val Thr Leu Ser Arg  
 195 200 205  
 Ser Lys Met Asn Lys Thr Lys Val Leu Lys Met Ile Phe Val His Leu  
 210 215 220  
 Val Ile Phe Cys Phe Cys Phe Val Pro Tyr Asn Ile Asn Leu Ile Leu  
 225 230 235 240  
 Tyr Ser Leu Met Arg Thr Gln Thr Phe Val Asn Cys Ser Val Val Ala  
 245 250 255  
 Ala Val Arg Thr Met Tyr Pro Ile Thr Leu Cys Ile Ala Val Ser Asn  
 260 265 270  
 Cys Cys Phe Asp Pro Ile Val Tyr Tyr Phe Thr Ser Asp Thr Ile Gln  
 275 280 285  
 Asn Ser Ile Lys Met Lys Asn Trp Ser Val Arg Arg Ser Asp Ser Arg  
 Page 49

290

295

78063.txt  
300

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<400> 47

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Tyr Thr Leu Tyr Gly Cys Met Phe Ser Met Val Phe Val Leu Gly Leu  
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78063.txt

Ile Ser Asn Cys Val Ala Ile Tyr Ile Phe Ile Cys Val Leu Lys Val  
35 40 45

Arg Asn Glu Thr Thr Thr Tyr Met Ile Asn Leu Ala Met Ser Asp Leu  
50 55 60

Leu Phe Val Phe Thr Leu Pro Phe Arg Ile Phe Tyr Phe Thr Thr Arg  
65 70 75 80

Asn Trp Pro Phe Gly Asp Leu Leu Cys Lys Ile Ser Val Met Leu Phe  
85 90 95

Tyr Thr Asn Met Tyr Gly Ser Ile Leu Phe Leu Thr Cys Ile Ser Val  
100 105 110

Asp Arg Phe Leu Ala Ile Val Tyr Pro Phe Lys Ser Lys Thr Leu Arg  
115 120 125

Thr Lys Arg Asn Ala Lys Ile Val Cys Thr Gly Val Trp Leu Thr Val  
130 135 140

Ile Gly Gly Ser Ala Pro Ala Val Phe Val Gln Ser Thr His Ser Gln  
145 150 155 160

Gly Asn Asn Ala Ser Glu Ala Cys Phe Glu Asn Phe Pro Glu Ala Thr  
165 170 175

Trp Lys Thr Tyr Leu Ser Arg Ile Val Ile Phe Ile Glu Ile Val Gly  
180 185 190

Phe Phe Ile Pro Leu Ile Leu Asn Val Thr Cys Ser Ser Met Val Leu  
195 200 205

Lys Thr Leu Thr Lys Pro Val Thr Leu Ser Arg Ser Lys Ile Asn Lys  
210 215 220

Thr Lys Val Leu Lys Met Ile Phe Val His Leu Ile Ile Phe Cys Phe  
225 230 235 240

Cys Phe Val Pro Tyr Asn Ile Asn Leu Ile Leu Tyr Ser Leu Val Arg  
245 250 255

Thr Gln Thr Phe Val Asn Cys Ser Val Val Ala Ala Val Arg Thr Met  
260 265 270

Tyr Pro Ile Thr Leu Cys Ile Ala Val Ser Asn Cys Cys Phe Asp Pro  
Page 51

275

280

285

Ile Val Tyr Tyr Phe Thr Ser Asp Thr Ile Gln Asn Ser Ile Lys Met  
 290 295 300

Lys Asn Trp Ser Val Arg Arg Ser Asp Phe Arg Phe Ser Glu Val His  
 305 310 315 320

Gly Ala Glu Asn Phe Ile Gln His Asn Leu Gln Thr Leu Lys Ser Lys  
 325 330 335

Ile Phe Asp Asn Glu Ser Ala Ala  
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 agctgtgggg ctcccaactt ccggcagggt cggggaggcc tccctgtgtt tggcatggga 120  
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## 78063.txt

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<400> 50

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Gly Thr Leu Lys Ser Cys Gly Ala Pro Asn Phe Arg Gln Val Arg Gly  
 20 25 30

Gly Leu Pro Val Phe Gly Met Gly Gln Pro Ser Leu Leu Gly Phe Arg  
 35 40 45

Arg Val Leu Gln Lys Leu Gln Thr Asp Gly Leu Lys Glu Cys Ile Ile  
 50 55 60

Phe Cys Val Arg Glu Glu Pro Val Val Phe Leu Arg Ala Glu Glu Asp  
 65 70 75 80

78063.txt

Phe Val Ser Tyr Thr Pro Arg Asp Lys Glu Ser Leu His Glu Asn Leu  
85 90 95

Arg Asp Pro Ser Pro Gly Val Lys Ala Glu Asn Leu Glu Leu Ala Ile  
100 105 110

Gln Lys Glu Ile His Asp Phe Ala Gln Leu Arg Asp Asn Val Tyr His  
115 120 125

Val Tyr His Asn Thr Glu Asp Leu Arg Gly Glu Pro His Thr Val Ala  
130 135 140

Ile Arg Gly Glu Asp Gly Val Cys Val Thr Glu Glu Val Phe Lys Arg  
145 150 155 160

Pro Leu Phe Leu Gln Pro Thr Tyr Arg Tyr His Arg Leu Pro Leu Pro  
165 170 175

Glu Gln Gly Ala Pro Leu Glu Ala Gln Phe Asp Ala Phe Val Ser Val  
180 185 190

Leu Arg Glu Thr Pro Ser Leu Leu Pro Leu Arg Asp Asn His Gly Pro  
195 200 205

Leu Pro Ala Leu Leu Phe Ser Cys Gln Ser Gly Val Gly Arg Thr Asn  
210 215 220

Leu Gly Met Val Leu Gly Thr Leu Val Met Phe His His Ser Arg Thr  
225 230 235 240

Thr Ser Gln Leu Glu Ala Ala Ser Pro Leu Ala Lys Pro Leu Pro Met  
245 250 255

Glu Gln Phe Gln Val Ile Gln Gly Phe Ile Cys Lys Val Pro Gln Gly  
260 265 270

Lys Lys Met Val Glu Glu Val Asp Arg Ala Ile Ser Ala Cys Ala Glu  
275 280 285

Leu His Asp Leu Lys Glu Glu Val Leu Lys Asn Gln Arg Arg Leu Glu  
290 295 300

Ser Phe Arg Pro Glu Ser Arg Gly Gln Glu Cys Gly Ser Gln Gln Ala  
305 310 315 320

Val Gln Gln Arg Ala Leu Trp Ser Leu Glu Leu Tyr Phe Tyr Leu Leu  
Page 54

Leu Phe Asn Tyr Tyr Leu His Glu Gln Tyr Pro Leu Ala Phe Ala Leu  
340 345 350

Ser Phe Ser Arg Trp Leu Cys Thr His Pro Glu Leu Tyr Arg Leu Leu  
355 360 365

Val Glu Leu Asn Ser Val Gly Pro Leu Val Pro Gly Asp Leu Ile Ala  
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Lys Gly Ser Leu  
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## 78063.txt

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## 78063.txt

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 His Tyr Leu Val Gln Gly Arg Tyr Phe Leu Val Arg Asp Val Thr Glu  
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 Lys Met Asp Val Leu Gly Thr Val Gly Ser Cys Gly Ala Pro Asn Phe  
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 Arg Leu Pro Leu Pro Glu Gln Gly Ser Pro Leu Glu Ala Gln Leu Asp  
 275 280 285  
 Ala Phe Val Ser Val Leu Arg Glu Thr Pro Ser Leu Leu Gln Leu Arg  
 290 295 300

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Asp Ala His Gly Pro Pro Pro Ala Leu Val Phe Ser Cys Gln Met Gly  
 305 310 315 320  
 Val Gly Arg Thr Asn Leu Gly Met Val Leu Gly Thr Leu Ile Leu Leu  
 325 330 335  
 His Arg Ser Gly Thr Thr Ser Gln Pro Glu Ala Ala Pro Thr Gln Ala  
 340 345 350  
 Lys Pro Leu Pro Met Glu Gln Phe Gln Val Ile Gln Ser Phe Leu Arg  
 355 360 365  
 Met Val Pro Gln Gly Arg Arg Met Val Glu Glu Val Asp Arg Ala Ile  
 370 375 380  
 Thr Ala Cys Ala Glu Leu His Asp Leu Lys Glu Val Val Leu Glu Asn  
 385 390 395 400  
 Gln Lys Lys Leu Glu Gly Ile Arg Pro Glu Ser Pro Ala Gln Gly Ser  
 405 410 415  
 Gly Ser Arg His Ser Val Trp Gln Arg Ala Leu Trp Ser Leu Glu Arg  
 420 425 430  
 Tyr Phe Tyr Leu Ile Leu Phe Asn Tyr Tyr Leu His Glu Gln Tyr Pro  
 435 440 445  
 Leu Ala Phe Ala Leu Ser Phe Ser Arg Trp Leu Cys Ala His Pro Glu  
 450 455 460  
 Leu Tyr Arg Leu Pro Val Thr Leu Ser Ser Ala Gly Pro Val Ala Pro  
 465 470 475 480  
 Arg Asp Leu Ile Ala Arg Gly Ser Leu Arg Glu Asp Asp Leu Val Ser  
 485 490 495  
 Pro Asp Ala Leu Ser Thr Val Arg Glu Met Asp Val Ala Asn Phe Arg  
 500 505 510  
 Arg Val Pro Arg Met Pro Ile Tyr Gly Thr Ala Gln Pro Ser Ala Lys  
 515 520 525  
 Ala Leu Gly Ser Ile Leu Ala Tyr Leu Thr Asp Ala Lys Arg Arg Leu  
 530 535 540  
 Arg Lys Val Val Trp Val Ser Leu Arg Glu Glu Ala Val Leu Glu Cys  
 545 550 555 560

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Asp Gly His Thr Tyr Ser Leu Arg Trp Pro Gly Pro Pro Val Ala Pro  
 565 570 575  
 Asp Gln Leu Glu Thr Leu Glu Ala Gln Leu Lys Ala His Leu Ser Glu  
 580 585 590  
 Pro Pro Pro Gly Lys Glu Gly Pro Leu Thr Tyr Arg Phe Gln Thr Cys  
 595 600 605  
 Leu Thr Met Gln Glu Val Phe Ser Gln His Arg Arg Ala Cys Pro Gly  
 610 615 620  
 Leu Thr Tyr His Arg Ile Pro Met Pro Asp Phe Cys Ala Pro Arg Glu  
 625 630 635 640  
 Glu Asp Phe Asp Gln Leu Leu Glu Ala Leu Arg Ala Ala Leu Ser Lys  
 645 650 655  
 Asp Pro Gly Thr Gly Phe Val Phe Ser Cys Leu Ser Gly Gln Gly Arg  
 660 665 670  
 Thr Thr Thr Ala Met Val Val Ala Val Leu Ala Phe Trp His Ile Gln  
 675 680 685  
 Gly Phe Pro Glu Val Gly Glu Glu Glu Leu Val Ser Val Pro Asp Ala  
 690 695 700  
 Lys Phe Thr Lys Gly Glu Phe Gln Val Val Met Lys Val Val Gln Leu  
 705 710 715 720  
 Leu Pro Asp Gly His Arg Val Lys Lys Glu Val Asp Ala Ala Leu Asp  
 725 730 735  
 Thr Val Ser Glu Thr Met Thr Pro Met His Tyr His Leu Arg Glu Ile  
 740 745 750  
 Ile Ile Cys Thr Tyr Arg Gln Ala Lys Ala Ala Lys Glu Ala Gln Glu  
 755 760 765  
 Met Arg Arg Leu Gln Leu Arg Ser Leu Gln Tyr Leu Glu Arg Tyr Val  
 770 775 780  
 Cys Leu Ile Leu Phe Asn Ala Tyr Leu His Leu Glu Lys Ala Asp Ser  
 785 790 795 800  
 Trp Gln Arg Pro Phe Ser Thr Trp Met Gln Glu Val Ala Ser Lys Ala  
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805 810 815

Gly Ile Tyr Glu Ile Leu Asn Glu Leu Gly Phe Pro Glu Leu Glu Ser  
820 825 830

Gly Glu Asp Gln Pro Phe Ser Arg Leu Arg Tyr Arg Trp Gln Glu Gln  
835 840 845

Ser Cys Ser Leu Glu Pro Ser Ala Pro Glu Asp Leu Leu  
850 855 860